

WHAT IS CLAIMED IS:

- 1           1.       A seat for use by an occupant in a vehicle, the seat comprising:  
2                   a seat base configured to be supported in the vehicle;  
3                   a back frame including a first transverse member, a first side member and a  
4 second side member, wherein the first transverse member interconnects each of the side  
5 members at a location toward an upper end of the back frame, the back frame further  
6 including a second transverse member interconnecting the first and second side members a  
7 spaced distance from the first transverse member;  
8                   a compliant back member having a first end operably connected to the first  
9 transverse member and a second end operably connected to the second transverse member;  
10                  and  
11                   a biasing member having a first end operatively engaging the compliant back  
12 member and a second end being anchored with respect to the back frame wherein when a  
13 seat occupant's back applies a force to the compliant back member, the biasing member  
14 applies a reaction force.
- 1           2.       The seat of claim 1, wherein the compliant back is coupled to the second  
2 transverse member by at least one pivot member such that the upper portion of the  
3 compliant back extends in a cantilevered fashion over the upper end of the back frame and a  
4 spaced distance from the back frame, wherein when the occupant in the seat leans into the  
5 upper portion of the compliant back, the upper portion can flex about the pivot until  
6 contacting the upper end of the back frame.
- 1           3.       The seat of claim 2, including at least one additional pivot member located a  
2 spaced distance from the other pivot member and coupled to the compliant back and the  
3 second transverse member.
- 1           4.       The seat of claim 1, including a side bolster, with one side bolster coupled to  
2 each of the first and second side members of the back frame and extended from the side  
3 members.
- 1           5.       The seat of claim 4 wherein the side bolsters are aligned with the compliant  
2 back such that the compliant back can be moved clear of the side bolsters.

6. The seat of claim 5, wherein the compliant back includes a slotted, flexible portion and expanded side portions configured to extend above the side bolsters to support the upper back and extremities of the occupant of the seat.

7. The seat of claim 1, wherein the biasing member is coupled to at least one of the side members and the lower portion of the compliant back.

8. The seat of claim 1, wherein the biasing member includes an adjuster to vary the tension in the biasing member to effect tension in the compliant back.

9. The seat of claim 1, wherein the biasing member includes at least one spring.

10. The seat of claim 1, wherein the seat is an automobile seat.

11. The seat of claim 1, including a change of position mechanism coupled to the back frame and seat base, wherein the back frame is moved in proportional relation to the seat base.

12. The seat of claim 11, wherein the change of position mechanism includes at least one electric motor.

13. A seat for use by an occupant in a vehicle, the seat comprising:  
a seat back frame;  
a compliant back member having a first portion pivotally connected to the seat back frame and a second portion laterally spaced from the first portion, the second portion pivotally and slidably connected to the seat back frame; and  
a biasing member having a first end operatively and slidably engaging the compliant back member, the biasing member including a second end being anchored with respect to the back frame wherein the biasing member applies a force against the compliant back member.

14. The seat of claim 13 further comprising a motor connected to the biasing member and wherein the biasing member is adjustable to selectively adjust the amount of force applied by the biasing member against the compliant back member.

15. The seat of claim 14 wherein the biasing member comprises:  
a first spring member aligned with the first side portion of the back frame, the first spring member having a first end having a roller member connected thereto, the roller member of the first end of the first spring member engaging the compliant back member in a location aligned with a lumbar portion of the back of an occupant;

6                   a second spring member located between the second side portion of the back  
7 frame and the first spring member, the second spring member having a first end having a  
8 roller member connected thereto, the roller member of the first end of the second spring  
9 member engaging the compliant back member in a location aligned with a lumbar portion of  
10 the back of an occupant; and  
11                   a lateral support member interconnecting the first spring member and the  
12 second spring member laterally transferring forces between the first spring member and the  
13 second spring member.